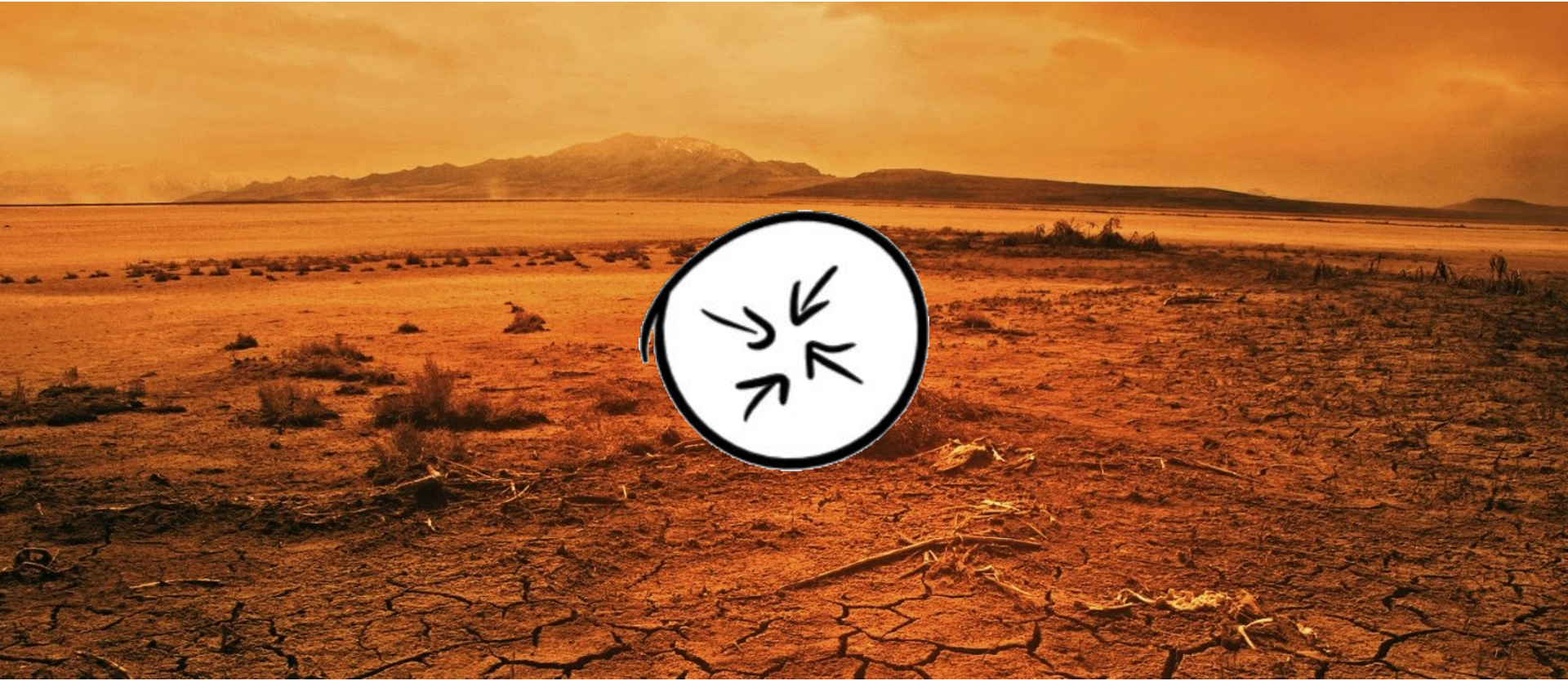
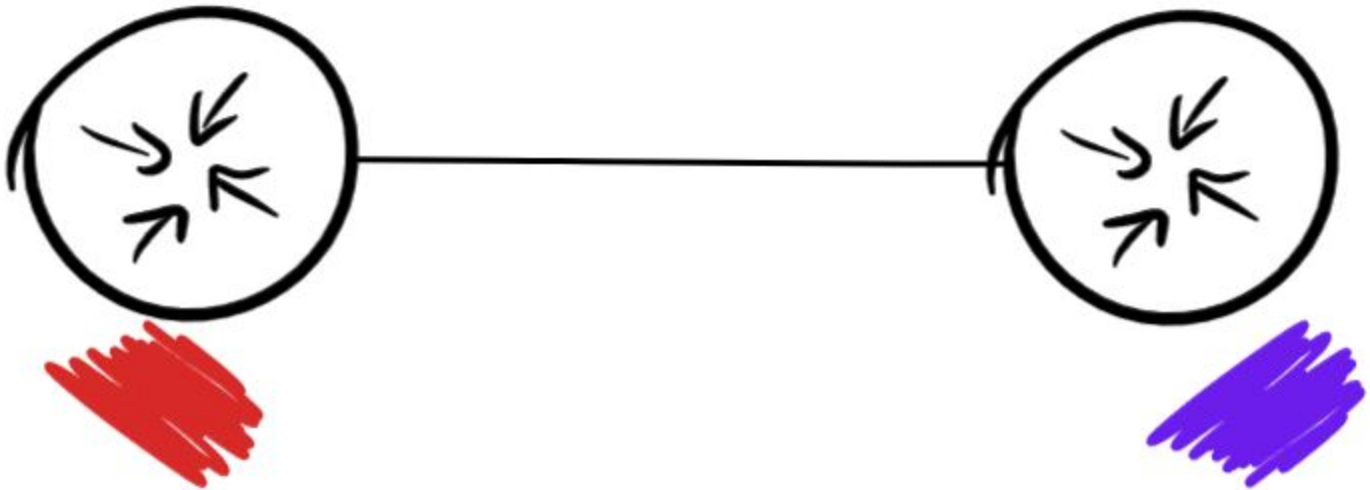
~~Border Gateway~~ Protocol

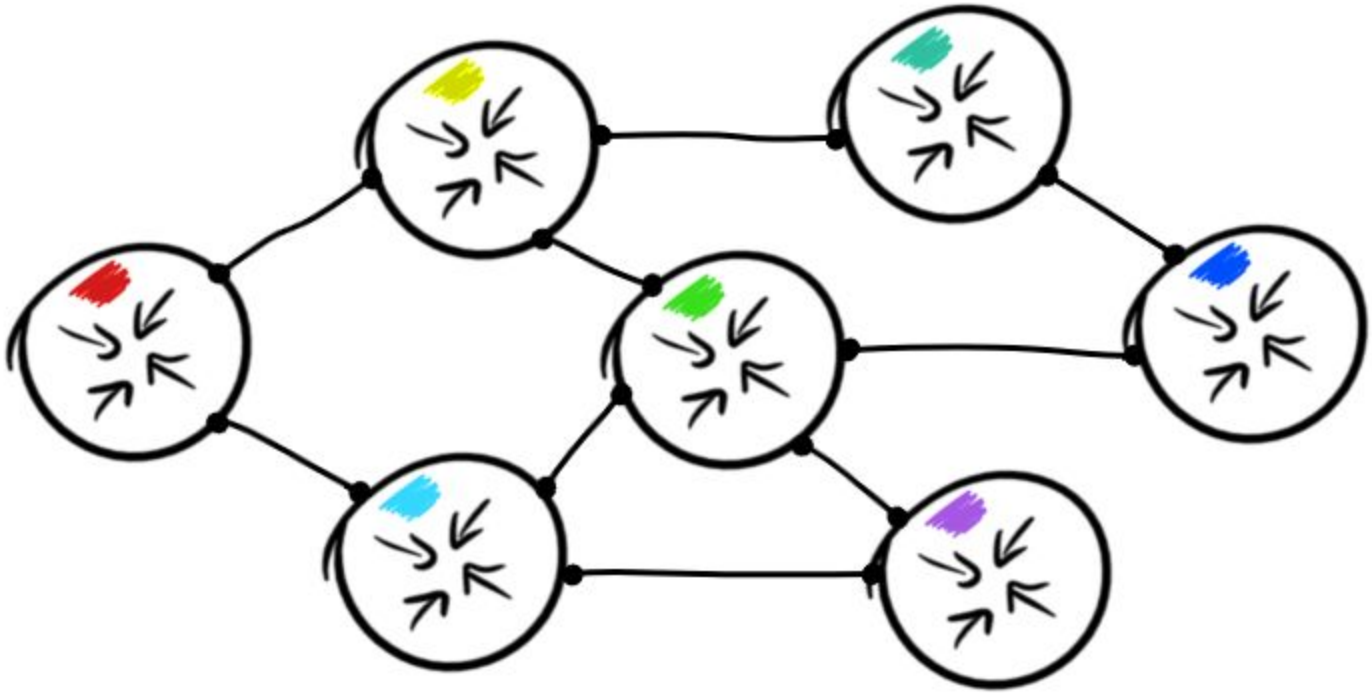
Battleship Game Protocol

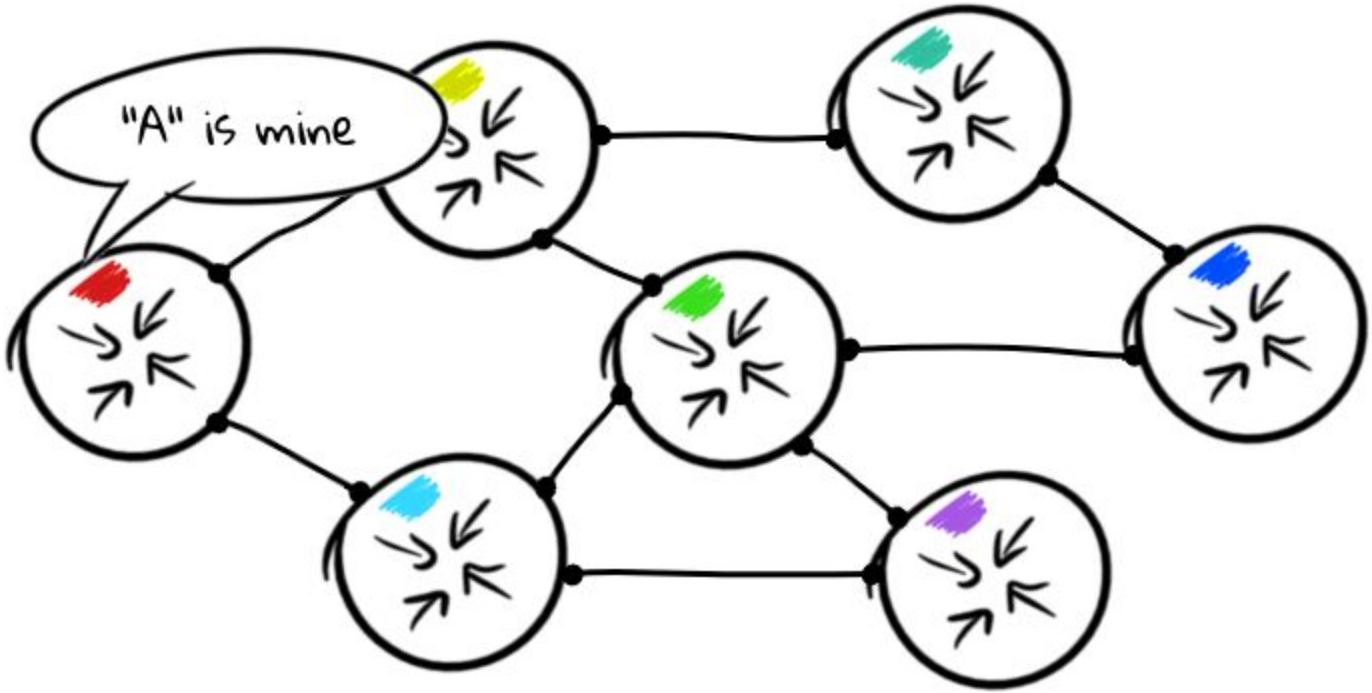
Ben Cartwright-Cox (Spring 2 / 2018)

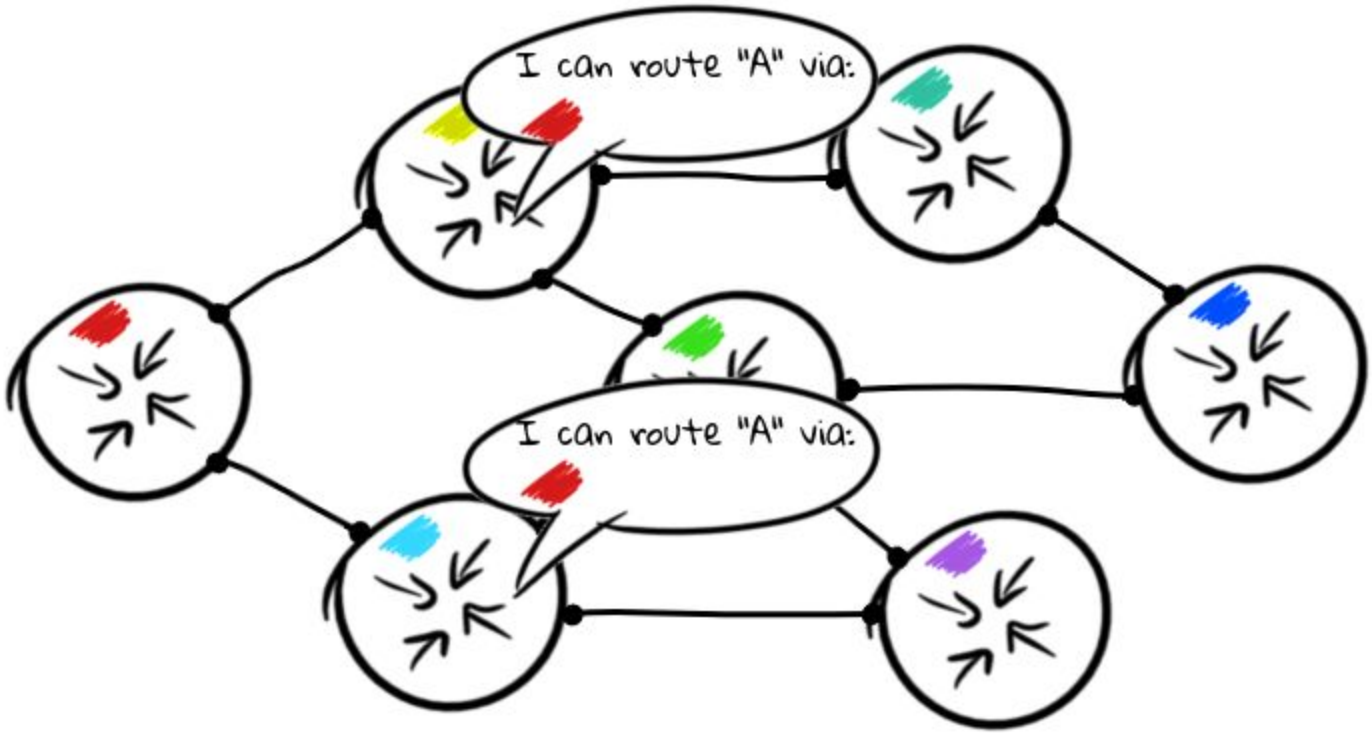
(28 July 2018)








"A" is mine


I can route "A" via:
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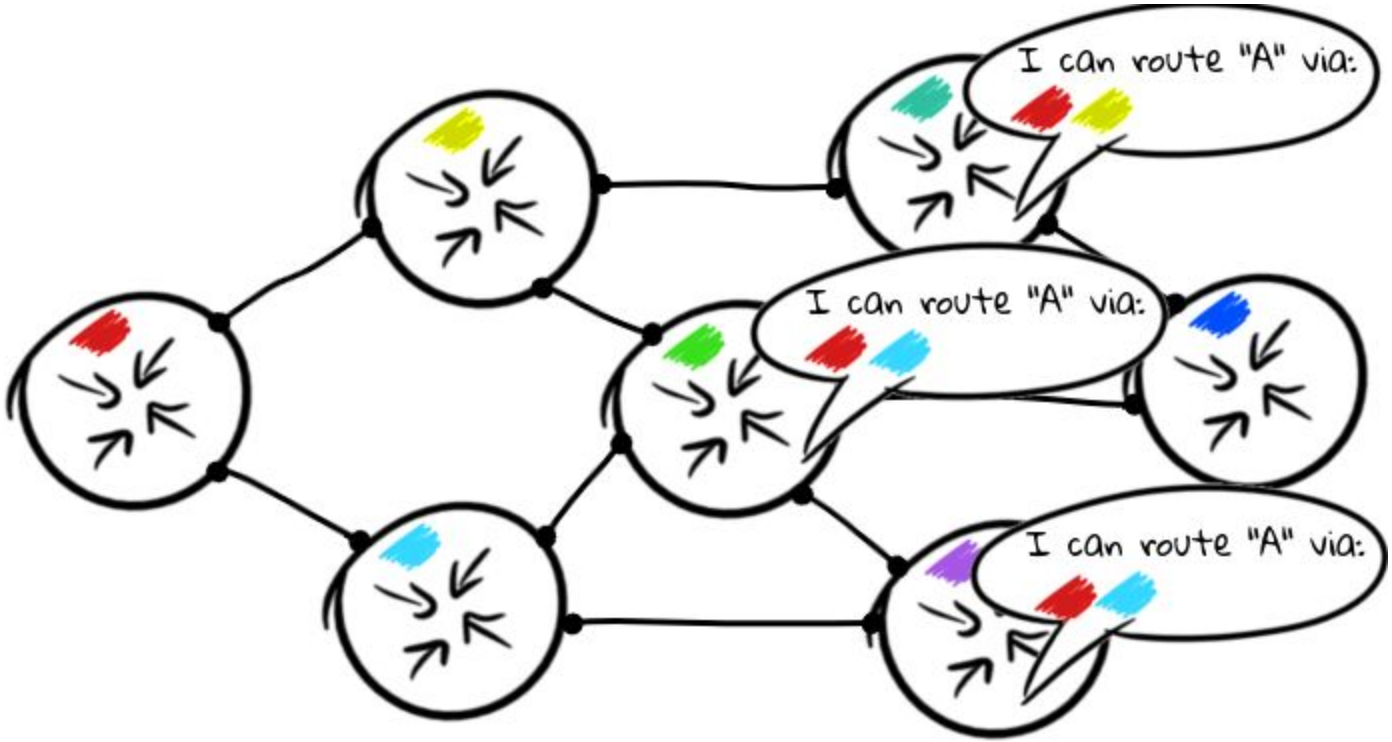
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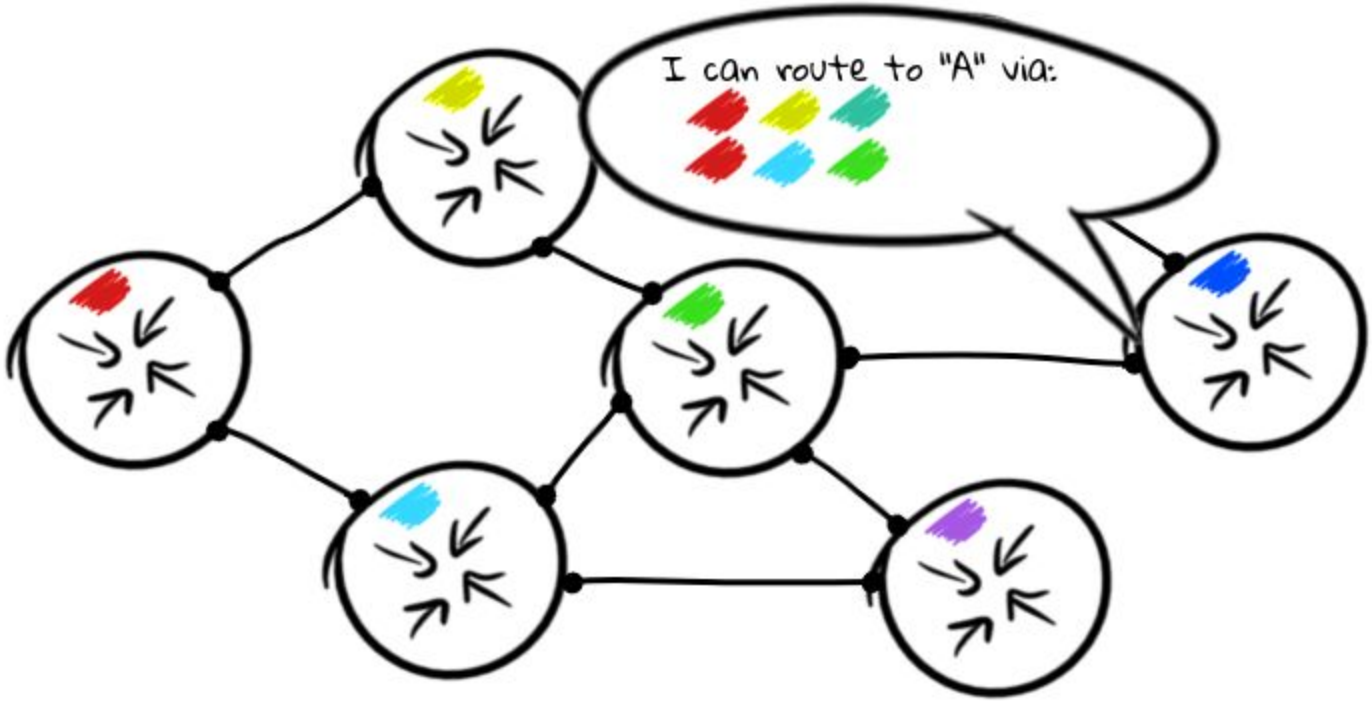
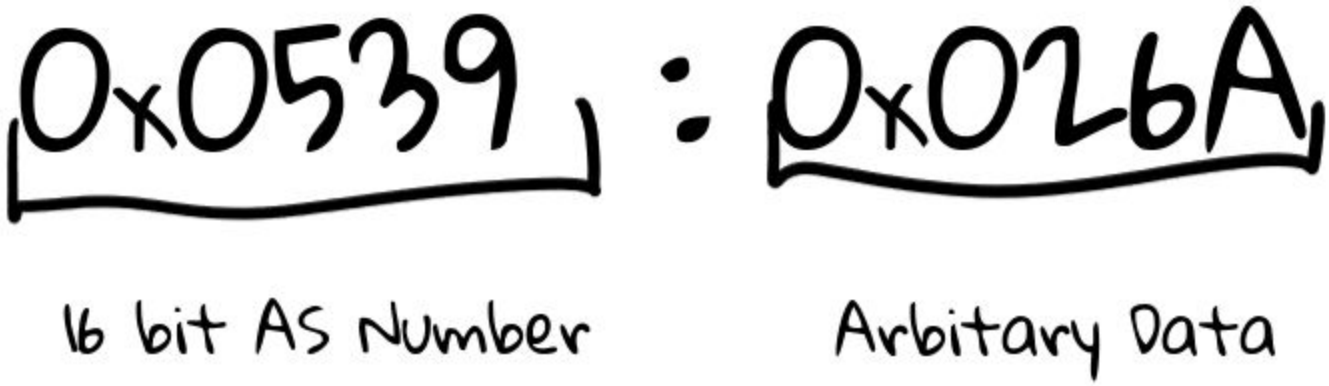
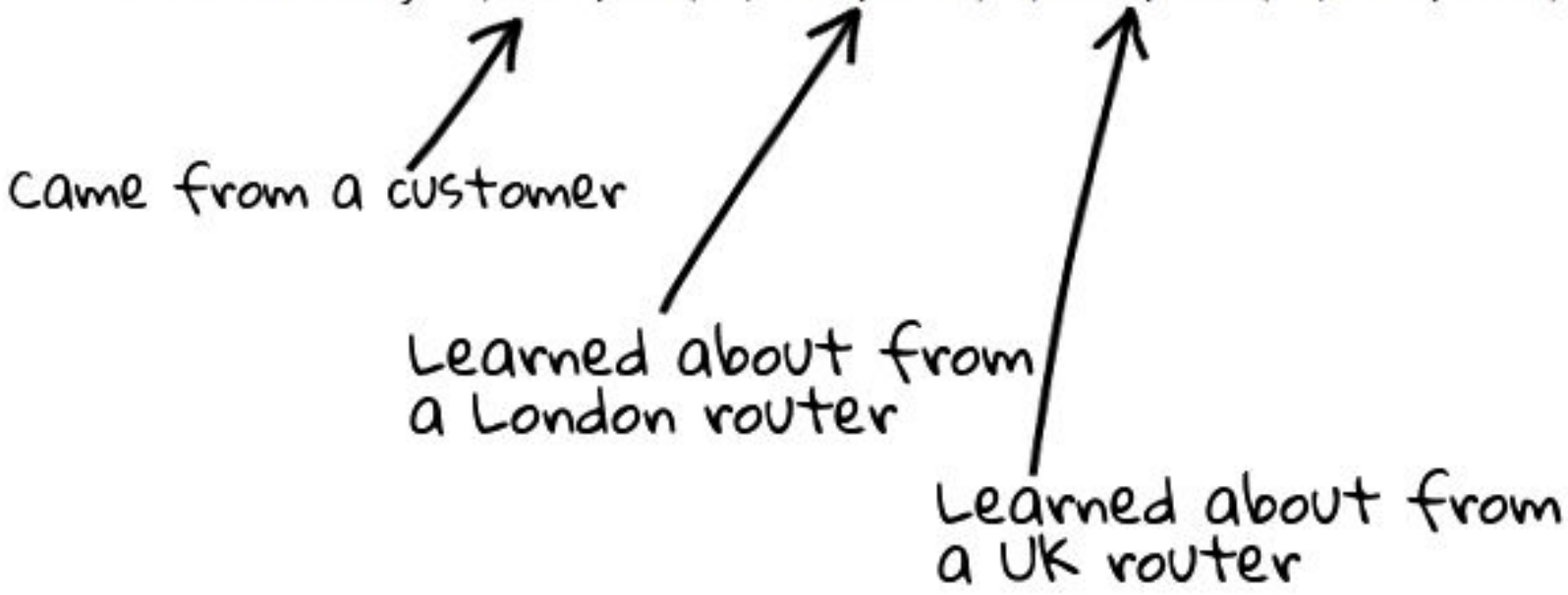

I can route to "A" via:


0x0539 : 0x026A
16 bit AS Number
Arbitary Data

```
BIRD 1.6.3 ready.
103.49.80.0/24     via 103.105.50.65 on eth0 [vmhaus 2018-05-15] * (100)
        Type: BGP unicast univ
        BGP.origin: IGP
        BGP.as_path: 136620 62240 2914 43519
        BGP.next_hop: 103.105.50.65
        BGP.med: 0
        BGP.local_pref: 100
        BGP.community: (2914,410) (2914,1203) (2914,2201) (2914,3200)
```



Home

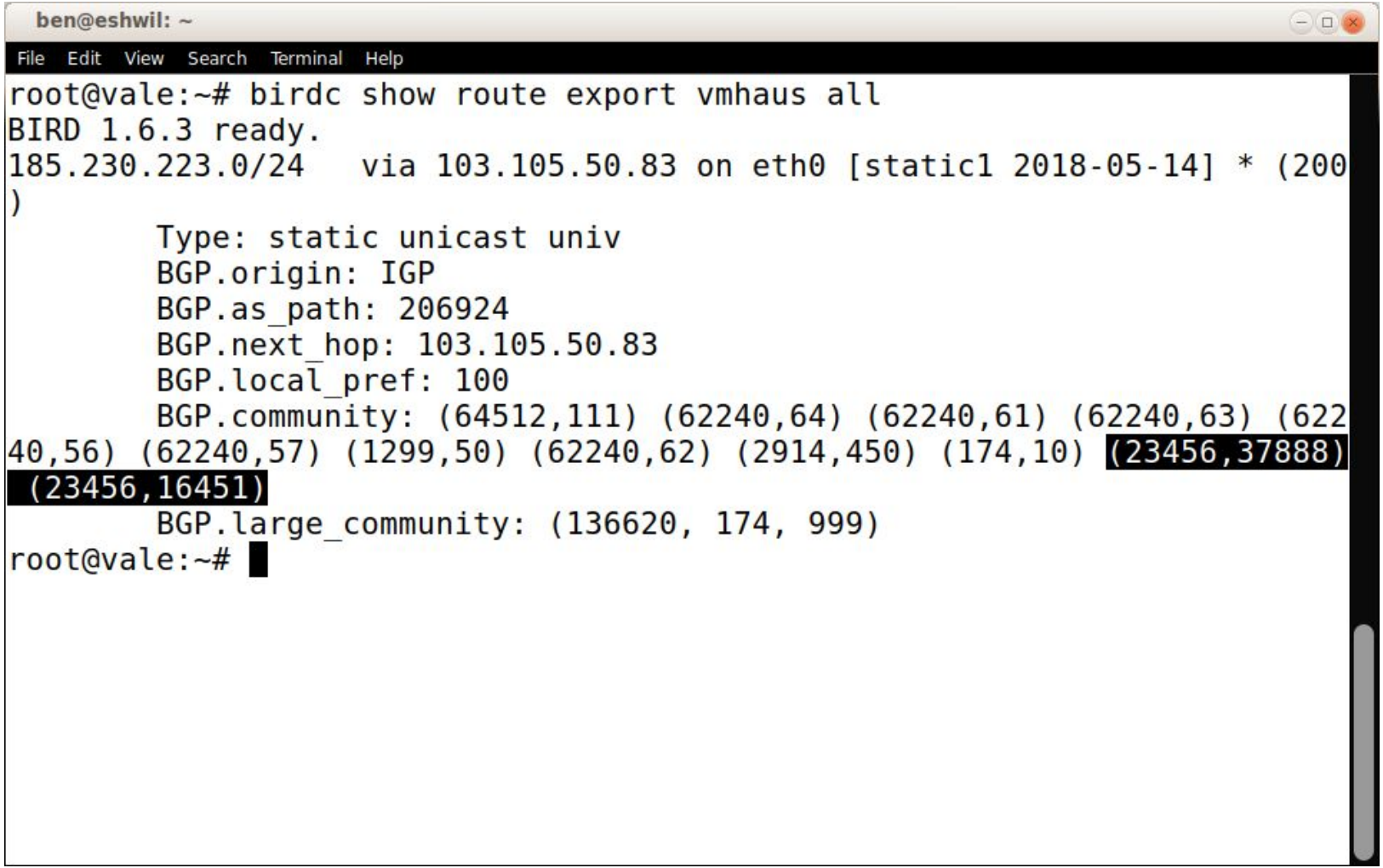
Welcome to the Hurricane Electric BGP Toolkit.

You are visiting from **2a07:1500:917::2**

Announced as **2a07:1500:917::/48**

Your ISP is **AS206924** (Ben Cartwright-Cox)


MB
KEY
TO FUN
FOR
AGES
8 TO
ADULT
MILTON
BRADLEY
COMPANY
SPRINGFIELD
MASSACHUSETTS
4730
MADE IN U.S.A.
AMERICA'S ALL TIME
FAVORITE GAME
BATTLESHIP
IT'S A HIT
G-4
BATTLESHIP
GAME


ben@eshwil: ~
File Edit View Search Terminal Help
root@vale:~# birdc show route export vmhaus all
BIRD 1.6.3 ready.
185.230.223.0/24   via 103.105.50.83 on eth0 [static1 2018-05-14] * (200
)
Type: static unicast univ
BGP.origin: IGP
BGP.as_path: 206924
BGP.next_hop: 103.105.50.83
BGP.local_pref: 100
BGP.community: (64512,111) (62240,64) (62240,61) (62240,63) (622
40,56) (62240,57) (1299,50) (62240,62) (2914,450) (174,10) (23456,37888)
(23456,16451)
BGP.large_community: (136620, 174, 999)
root@vale:~#

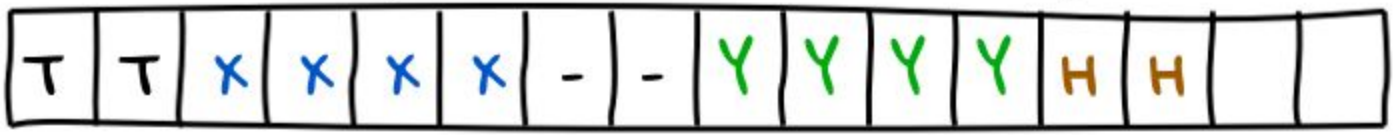
"Counter" Community

T = Type (Always 1) Z = 14 bit Interger counter

"Position" Community

T = Type (Always 2) X = 4 bit int for attack X

Y = 4 bit int for attack H = 2 bit int for Hit/Miss



The first ever board game conducted over BGP

Still have time???

1.25 per router on average
700W
30 ms to process a route update in total

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700W
30 ms to process a route update in total

Level(3)

Has 7726 downstream networks that would have seen these updates
Educated guess that 1.5 is the average amount of routers per network

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Has 7726 downstream networks that would have seen these updates
Educated guess that 1.5 is the average amount of routers per network

Level(3)

Has 721 internal routers

0.0000038KwH per route update

0.0000038KwH per route update

0.0000038 * 12310 =
0.0467KwH

500 kg

500kg of meat = 717500 cal

=

0.83 KwH

500 kg

500kg of meat = 717500 cal

=

0.83 KwH

68 moves =

0.0467 * 68 = 3.1756 KwH

500 kg

500kg of meat = 717500 cal

=

0.83 KwH

68 moves =

0.0467 * 68 = 3.1756 KwH

==

3.82 Polar bears







Thank you